

Products...Target...Alignment Analysis

Table of contents

1 Alignment Analysis.....	2
1.1 Placing this Section in Context within the Target Architecture.....	2
1.2 Alignment Analysis Purpose.....	2
1.3 Alignment Metric Concept.....	2
1.4 Project Alignment Metric Construction.....	3
1.5 Portfolio Alignment Metric Construction.....	3
1.6 Interpretation of the Alignment Score.....	4

1. Alignment Analysis

1.1. Placing this Section in Context within the Target Architecture

Beginning at the top of the Target Architecture discussion

1. The *Target Architecture Introduction* described the purpose and methodology behind the *One-VA Target Architecture*;
2. The *Target Architecture Strategy* section, *Target Architecture Transition Plan*, *Target Project Abstracts* section, the *Reuse, Redundancy and Gap Analysis* section, the *EA Portfolio Recommendations* section, and the *Target Sequencing Plan* section combine to create a vision of the *Target Architecture End-State View* and to propose a series of projects for achieving that end-state.
3. The current *Target Alignment Analysis* section establishes a metric to measure the alignment of the One-VA architecture with the Presidents Management Agenda and the Federal Enterprise Architecture principals of data and process reuse and redundancy elimination. This metric is applied first to the current portfolio and then to the current portfolio with the EA proposed projects amended to it. These metrics should show increased alignment between One-VA EA and the FEA, with each, successive iteration of the EA.

1.2. Alignment Analysis Purpose

The purpose of the Target Alignment Analysis is to assign a quantitative measure to the degree to which the IT development portfolio is aligned with the objectives of the target architecture and the FEA. The measure employed here is uniquely contrived for this purpose. Its only value is to provide a consistent measure from year-to-year, as the portfolio evolves and the target architecture begins to be achieved. IT should be interpreted as a “percentage of alignment” with a theoretical limit of 100%.

1.3. Alignment Metric Concept

Each IT project is assigned a numeric value that is derived from various alignment factors, each of which indicates support to, and achievement of, an aspect of a target architecture objective. As the target architecture is progressively integrated into the portfolio, from year to year, this metric is expected to increase, approaching its maximum possible value as the portfolio reaches full alignment, and the target end-state is achieved.

At the project level, a fully aligned project will be accorded a value of 100. For a business development application, this score can result from implementing a PMA solution or from

implementing a component-based solution in conjunction with reusing or creating a shared data store. For an infrastructure-based project, this score can result from deploying or using an existing shared infrastructure resource and/or establishing a "Pattern" technical solution.

A significant number of legacy IT development projects, are not expected to score highly by these criteria because these development projects were approved and initiated prior to the development of the current target architecture vision. These legacy projects conform to the architectural standards in place at the time of the project's conception, but they do not necessarily conform to the current standard. However, as these legacy projects are completed, the proportion of target-architecture compliant projects, within the portfolio will increase, and with it, so will the target alignment score.

1.4. Project Alignment Metric Construction

This analysis acknowledges the following IT project factors:

- Reuse of an existing, complete system solution: (PMA e-Gov, PMA-LOB or COTS solution): Alignment Value = 100;
- Application development involving creation (or reuse) of a component-based solution: Alignment Value = 50;
- Application development involving creation (or reuse) of a shared data store: Alignment Value = 50;
- Application development which retires existing, obsolete legacy applications or eliminates redundant applications: Alignment Value = 50;
- Infrastructure augmentation projects which employs an existing (or creates a new) non-redundant sharable infrastructure resource: Alignment Value = 100;
- Infrastructure projects which develop a VA-wide "Pattern" technical solution: Alignment Value = 50.

For the purpose of the alignment metric computation, the use of an existing PMA solution is considered mutually exclusive with the creation or use of a component based solution and with the reuse of sharable data, therefore a maximum score of 100 can be attributed to any project. When a project scores in several areas, so that a project total score greater than 100 would result, the factor scores are proportionately reduced to create a project score of 100.

1.5. Portfolio Alignment Metric Construction

The Portfolio score is the simple average of the project scores. However two factors will independently skew (but jointly correct) this portfolio score value. The portfolio average will include legacy projects that preceded the availability of the target architecture guidance, thereby lowering the score. However, the portfolio plus recommended project average will also include EA-recommended projects, which have had the benefit of target architecture direction, and can

be expected to improve the portfolio score.

1.6. Interpretation of the Alignment Score

The portfolio alignment score is expected to improve form year-to-year as un-aligned legacy projects are retired and new, aligned projects continue to populate the portfolio. At a certain point, the portfolio score should asymptotically approach a value of 100, if the target architecture is being properly enforced.

The referenced Excel spreadsheet tables compute:

1. The current (BY-2007) alignment value of the portfolio, which is 64% and
2. The value of the current portfolio combined with the EA portfolio recommendations, which is 68%.

This value pair clearly indicates that the projects proposed to complete the target Architecture Vision will also significantly improve the alignment between VA and the direction prescribed in the Federal Architecture.

These metrics will be recomputed when the BY-2008 portfolio is published and EA V4.1 is correspondingly amended in September 2006.

Reference(s):

- VA Target Architecture Alignment Analysis.xls